

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-4 (Canceled):

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Claim 5 (Currently Amended): ~~[[The]]~~ An echo canceller of claim 4, further comprising that eliminates echoes produced in an echo path formed between a loudspeaker that converts receiving signals into voice output and a microphone that converts voice input into sending signals, the echo canceller comprising:

an adaptive digital filter, designed to imitate transmission characteristics of the echo path, that generates pseudo echo signals responsive to a part of the receiving signals;

a subtracter that subtracts the pseudo echo signals from the sending signals containing echo noise that is input to the microphone from the echo path, to provide an echo canceled sending signal,

wherein tap coefficients of said adaptive digital filter are modified responsive to the part of the receiving signals and a part of the echo canceled sending signal; and

an attenuator that attenuates the sending signals containing echo noise so that

an amplitude level of the echo noise matches an amplitude level of the pseudo echo signals, and that provides the attenuated sending signals to said subtracter as the sending signals for subtraction.

Claim 6 (Previously Presented): The echo canceller of claim 5, wherein said attenuator is a variable attenuator.

Claim 7 (Previously Presented): The echo canceller of claim 5, wherein said attenuator is a fixed attenuator.

Claim 8 (Currently Amended): ~~[[The]]~~ An echo canceller of claim 4, further comprising that eliminates echoes produced in an echo path formed between a loudspeaker that converts receiving signals into voice output and a microphone that converts voice input into sending signals, the echo canceller comprising:

an adaptive digital filter, designed to imitate transmission characteristics of the echo path, that generates pseudo echo signals responsive to a part of the receiving signals;

a subtracter that subtracts the pseudo echo signals from the sending signals containing echo noise that is input to the microphone from the echo path, to provide an echo canceled sending signal,

wherein tap coefficients of said adaptive digital filter are modified

responsive to the part of the receiving signals and a part of the echo canceled sending signal; and

an amplifier that amplifies the pseudo echo signals so that an amplitude level of the pseudo echo signals matches an amplitude level of the echo noise, and that provides the amplified pseudo echo signals to said ~~subtractor~~ subtractor as the pseudo echo signals for subtraction.

Claim 9 (Previously Presented): The echo canceller of claim 8, wherein said amplifier is a variable amplifier.

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Claim 10 (Previously Presented): The echo canceller of claim 8, wherein said amplifier is a fixed amplifier.

Claim 11 (Currently Amended): ~~[[The]]~~ An echo canceller of claim 4, further comprising that eliminates echoes produced in an echo path formed between a loudspeaker that converts receiving signals into voice output and a microphone that converts voice input into sending signals, the echo canceller comprising:

an adaptive digital filter, designed to imitate transmission characteristics of the echo path, that generates pseudo echo signals responsive to a part of the receiving signals;

a subtracter that subtracts the pseudo echo signals from the sending

signals containing echo noise that is input to the microphone from the

echo path, to provide an echo canceled sending signal,

wherein tap coefficients of said adaptive digital filter are modified
responsive to the part of the receiving signals and a part of the echo canceled sending
signal; and

an amplifier that amplifies the part of the receiving signals so that an amplitude level of the pseudo echo signals matches an amplitude level of the echo noise, and that provides the amplified part of the receiving signals to said adaptive digital filter as the part of the receiving signals,

13 wherein the loudspeaker converts the receiving signals that are not amplified by
said amplifier.

Claim 12 (Currently Amended): The echo canceller of claim 11, wherein said amplifier is a variable amplifier.

Claim 13 (Currently Amended): The echo canceller of claim 11, wherein said amplifier is a fixed amplifier.

Claim 14 (Canceled)
